

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-11 (Canceled):

Claims 12-29 (Cancelled):

Claim 30 (New): An isolated polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO: 2 or a fragment thereof,
wherein said protein or protein fragment regenerates luciferin.

Claim 31 (New): The isolated polynucleotide of Claim 30, which encodes a polypeptide comprising SEQ ID NO: 2.

Claim 32 (New): The isolated polynucleotide of Claim 30, which encodes a polypeptide which comprises a fragment of SEQ ID NO: 2.

Claim 33 (New): A vector comprising the isolated polynucleotide of Claim 30.

Claim 34 (New): A host cell comprising the isolated polynucleotide of Claim 30.

Claim 35 (New): A method of producing a protein that can regenerate luciferin comprising:

culturing the host cell of claim 34 in a medium, and
collecting the protein.

Claim 36 (New): The method of Claim 35, further comprising isolating or purifying said protein.

Claim 37 (New): The method of Claim 35, comprising culturing *Escherichia coli* JM109 (pLRE).

Claim 38 (New): *Escherichia coli* JM109 (pLRE) (FERM BP-6908).